DRAFT

ENVIRONMENTAL IMPACT STATEMENT

EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM

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COVER SHEET

DRAFT ENVIRONMENTAL IMPACT STATEMENT
EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM

a. Responsible Agency: U.S. Air Force

b. Cooperating Agency: Federal Aviation Administration (FAA)

c. Proposed Action: Implementation of the Evolved Expendable Launch Vehicle (EELV) Program

d. Inquiries on this document should be directed to: Mr. Jonathan D. Farthing, Chief, Environmental Analysis Division, HQ AFCEE/ECA, 3207 North Road, Brooks Air Force Base, Texas, 78235-5363, (210) 536-3668

e. Designation: Draft Environmental Impact Statement (DEIS)

f. Abstract: This DEIS has been prepared in accordance with the National Environmental Policy Act to analyze the potential environmental consequences of the Proposed Action and the No-Action Alternative. The Proposed Action is the development, deployment, and operation of EELV systems. EELV systems would replace current Atlas IIA, Delta II, and Titan IVB launch systems and are intended to meet the requirements of the U.S. government National Executable Mission Model (NMM), both medium and heavy lift, at a lower launch cost than the present expendable launch systems. The proposed launch locations for the program are Cape Canaveral Air Station (AS), Florida, and Vandenberg Air Force Base (AFB), California. Under the Proposed Action, three concepts were examined. Concepts A and B depict each of the two EELV contractor concepts. The number of launches analyzed for each of these concepts includes the government NMM, plus 16 commercial launches per year. Under Concept A/B, there is no distinction between government and commercial flights. For the analysis, each contractor is assumed to launch 50 percent of the combined total of EELV flights.

The No-Action Alternative would be a decision not to proceed with the EELV program. The Atlas IIA, Delta II, and Titan IVB launch vehicles would support space launches to meet the requirements of the NMM.

The DEIS includes analyses of potential impacts to local community (employment and population), land use and aesthetics, transportation, utilities, hazardous materials and hazardous waste management, health and safety, geology and soils, water resources, air quality (upper and lower atmosphere), noise, orbital debris, biological resources, cultural resources, and environmental justice.

Under the Proposed Action, the number of direct and indirect jobs, and population associated with launch activities at both installations, would increase temporarily. Thereafter, employment and population associated with launch activities would decline as the requirement for jobs associated with current launch programs declines. No impacts to land use, utility systems, or transportation networks are anticipated. Although quantities of hazardous materials utilized and hazardous waste generated may increase under the Proposed Action (due to the addition of commercial launches) over No-Action Alternative levels, both installations have appropriate management procedures in place in compliance with applicable regulations; therefore, no impacts are expected. No Class I ozone-depleting substances (ODSs) would be utilized under the Proposed Action; the use of Class II ODSs would be minimized or eliminated. Proposed Action construction activities at both installations would be coordinated with installation personnel to minimize impacts to remediation activities and the EELV program schedule. At both installations, procedures are in place to respond to unplanned launch events. Installation personnel and the general public are not predicted to be at risk during normal or aborted launches.

Appropriate erosion control measures (proper construction practices and compliance with permit requirements) would be implemented to reduce the potential for impacts to soils, geology, and water resources. A Storm Water Pollution Prevention Plan would be required at both

installations. Under both concepts, deluge water would be retained after launch and managed or treated in accordance with installation requirements. Under Concepts B and A/B, as well as the No-Action Alternative, temporary deposition of hydrochloric acid (HCl) and aluminum oxide associated with some commercial launches may result in a brief acidification of surface waters; however, no long-term impacts are expected.

During construction activities, there would be a short-term, temporary increase of local concentrations of criteria pollutants. Peak launch year emissions would not be sufficient to jeopardize the attainment status for criteria pollutants at either installation. EELV systems would have lower emissions per launch than No-Action Alternative systems, and no adverse impacts are anticipated. Because Vandenberg AFB is within an area designated by the U.S. Environmental Protection Agency as in nonattainment for ozone, EELV activities must comply with Clean Air Act requirements mandating that federal actions comply with the applicable State Implementation Plan to achieve attainment. Under Concept A, launches would produce no estimated emissions of ODSs, and therefore would not contribute to any degradation of the stratospheric ozone layer. For some Concept B and A/B commercial launches and for some No-Action Alternative launches involving use of solid rocket motors, alumina particulates and chlorine compounds would be emitted into the stratosphere; however, these amounts would be minimal, and no adverse impacts are expected. Launch and sonic boom noise would be short-term and temporary, and no impacts to structures or humans are anticipated. A small, incremental contribution to the existing orbital debris population could occur under the Proposed Action and the No-Action Alternative; however, all EELV program vehicles would be designed to minimize orbital debris.

At both installations, impacts to vegetation and wildlife would be minimal. At Vandenberg AFB, short-term impacts could occur to wildlife exposed to sonic booms; launches require a marine mammal take permit from the National Marine Fisheries Service; permit requirements may include monitoring during launches. Wetland areas that could be affected by Proposed Action construction activities would be mitigated in accordance with permit requirements. Dredging activities at the South Vandenberg AFB Boat Dock area would require a permit. Construction associated with the Proposed Action at Cape Canaveral AS would not affect any National Register of Historic Places (National Register)-listed or eligible prehistoric or historic archaeological sites, or archaeologically sensitive areas. No traditional resources have been identified in the Area of Potential Effect (APE) at either installation. Under Concept B, one facility that would require modification (Hangar C) may possess historical significance; a determination is pending. Mitigations, if required, would be developed in consultation with the Florida State Historic Preservation Officer. Construction associated with Concept B at Vandenberg AFB would occur at Space Launch Complex-6, which is an archaeologically sensitive area. Ground-disturbing activities would require archaeological and Native American monitoring. Because no construction or facility modifications are proposed under the No-Action Alternative, there would be no effects to historic properties. Activities associated with the Proposed Action and the No-Action Alternative would not cause disproportionately high and adverse impacts to low-income and minority populations.

SUMMARY

PURPOSE OF AND NEED FOR ACTION

The primary requirement of the Evolved Expendable Launch Vehicle (EELV) program is to provide the capability for lifting medium (2,500 to 17,000 pounds) and heavy (13,500 to 41,000 pounds) payloads to orbit according to the National Executable Mission Model (NMM) for government space launches at lower recurring costs than those of current expendable systems. The EELV would replace current Atlas IIA, Delta II, and Titan IVB launch vehicles meeting the NMM. The launch vehicle would support military, intelligence, and civil contractor launches and would be DoD's source of expendable medium and heavy space lift transportation to orbit through 2020.

The Air Force has prepared this environmental impact statement (EIS) to provide information on the potential impacts resulting from the development and operation of EELV systems. Because commercial launches are included in the Proposed Action, the Federal Aviation Administration (FAA) is serving as a cooperating agency in the preparation of this EIS.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

Proposed Action. The Air Force is considering participation in the continued development and deployment of EELV systems. These systems would be unmanned, expendable space launch systems evolved from existing systems. The EELV family of vehicles would consist of medium launch vehicles (MLVs) and heavy launch vehicles (HLVs).

Cape Canaveral Air Station (AS), Florida, and Vandenberg Air Force Base (AFB), California are the only locations within the United States that currently provide space launch capabilities to support the EELV program. Both the MLV and HLV would be designed so that all launch vehicle configurations could be launched from both locations.

As a result of the Air Force implementation of EELV, one or more contractors may use EELV systems to launch commercial payloads. The proposed government and commercial launch activities for both contractors are discussed and their impacts analyzed.

The government portion of the EIS mission model is based on the Air Force Space Command (AFSPC) NMM. Information included in the AFSPC NMM for both the east and west coasts includes vehicle types and proposed payload. The commercial portion of the mission model used in this EIS was created using commercial forecasts from the AFSPC NMM, the Commercial Space Transportation Advisory Council (COMSTAC) projections, and FAA estimates. The projected peak launch rate at Cape Canaveral AS would be achieved in 2015, and the projected peak launch rate at Vandenberg AFB would be achieved in 2007.

This EIS analyzes three options for implementing the Proposed Action. Concepts A and B depict each of the two EELV contractor concepts: that of

the Lockheed Martin Corporation and that of McDonnell Douglas Aerospace, a wholly owned subsidiary of the Boeing Company. The number of launches analyzed for each of these concepts includes the government NMM, plus 16 commercial launches per year. Under these concepts, only one of the two contractors would continue to develop and use an EELV system. The third option, Concept A/B, depicts a scenario under which both contractors would continue with the development and use of EELV systems. Under Concept A/B, no distinction is made between government and commercial flights. For the EIS analysis, each contractor is assumed to launch 50 percent of the combined total of EELV flights.

Under Concept A, Space Launch Complex (SLC)-41 at Cape Canaveral AS and SLC-3W at Vandenberg AFB would be utilized for EELV launches. Under Concept B, SLC-37 at Cape Canaveral AS and SLC-6 at Vandenberg AFB would be utilized for EELV launches. In addition to the launch complexes, other facilities at both locations would be utilized for both concepts. All of the facilities used for Concept A and Concept B activities would be utilized under Concept A/B.

No-Action Alternative. The No-Action Alternative would be a decision not to proceed with the development and deployment of the EELV program. The Atlas IIA, Delta II, and Titan IVB launch vehicles would continue to support space launches to meet the requirements of the government portion of the NMM. These launch vehicles would provide DoD's source of expendable medium and heavy spacelift transportation to orbit through 2020. The No-Action Alternative does not include analysis of commercial launches.

SCOPE OF STUDY

In order to establish the context in which environmental impacts may occur, potential changes in population and employment, land use and aesthetics, transportation, and utility services are discussed, as are issues related to current and future management of hazardous materials and wastes. Additionally, health and safety issues are examined. Potential impacts to the natural environment are evaluated for geology and soils, water resources, air quality, noise, orbital debris, biological resources, and cultural resources. Potential environmental justice impacts to minority and/or low-income populations that could occur as a result of the EELV program are also considered.

SUMMARY OF ENVIRONMENTAL IMPACTS

Following is a brief description of potential environmental impacts of the Proposed Action and No-Action Alternative. Options for mitigating potential adverse environmental impacts that might result from development and operation of EELV systems are presented and discussed, where applicable.

LOCAL COMMUNITY

Proposed Action

The number of direct and indirect jobs, and population associated with launch activities at both installations, would increase temporarily during construction

activities. Thereafter, employment and population associated with launch activities would decline as the requirement for jobs associated with current launch vehicle programs declines. This decline in employment and population would be very small in comparison to projected regional growth around both installations.

No-Action Alternative

Under the No-Action Alternative, the number of direct and indirect jobs would remain at 1997 levels through 2015. Population and employment in the region are projected to increase through 2015.

LAND USE AND AESTHETICS

Proposed Action

Incompatible land uses would not result from implementation of the EELV program. A federal coastal zone consistency determination would be required for EELV activities at both installations. At Vandenberg AFB, more frequent annual beach closures are expected from EELV launch activities because of the increased number of launches (due to the addition of commercial launches) over the No-Action Alternative.

No-Action Alternative

Under the No-Action Alternative, no construction or facility modification would occur. The number of annual beach closures at Vandenberg AFB would be similar to that of current closures.

TRANSPORTATION

Proposed Action

During construction activities, project-related traffic would increase slightly over No-Action Alternative levels. During the operational phase of the EELV program, project-related traffic is expected to decline, and no impacts are anticipated.

No-Action Alternative

Under the No-Action Alternative, project-related traffic would continue at existing volumes, and no impacts are expected.

UTILITIES

Proposed Action

During construction activities, utility consumption would increase slightly over No-Action Alternative levels; however, all systems would continue to operate within capacity. During the operational phase, utility usage on the installations would increase. However, utility usage associated with existing launch vehicle programs would decline, and the EELV-related increases

would be minimal in comparison to regional growth; therefore, no impacts are expected.

No-Action Alternative

Under the No-Action Alternative, no changes in current utility consumption are expected. All systems would continue to operate within capacity, and no impacts are anticipated.

HAZARDOUS MATERIALS AND WASTE

Proposed Action

Under Concept A, total hazardous materials and propellant usage is expected to increase over No-Action Alternative levels; per launch usage is expected to decrease. Activities would be conducted in accordance with existing regulations for the use and storage of hazardous materials. Solid rocket motors would not be used for Concept A activities, thus eliminating the need for storage of solid propellant. Hazardous waste generation would increase over 1996 amounts due to the increased number of launches (due to the addition of commercial launches) over the No-Action Alternative. The types of waste would be similar in nature to wastes currently handled by both installations. No Class I ozone-depleting substances (ODSs) would be used for Concept A activities.
Under Concept B, total hazardous materials usage is expected to decrease from No-Action Alternative levels; however, the amount of propellants stored would increase. Activities would be conducted in accordance with existing regulations for the use and storage of hazardous materials. Hazardous waste generation would increase over 1996 amounts due to the increased number of launches (due to the addition of commercial launches) over the No-Action Alternative. The wastes would be similar in nature to wastes routinely handled by both installations. No Class I ODSs would be used for Concept B activities.

Construction activities associated with Concepts A and B at both installations would be coordinated with Installation Restoration Program personnel to minimize impacts to remediation activities and the EELV program schedule.

Under Concept A/B, total hazardous materials and propellants usage and hazardous waste generated would increase at both installations as a result of the increased number of launches (due to the addition of commercial launches) over the No-Action Alternative. Other aspects of hazardous materials and waste management would be a combination of the effects described for Concepts A and B.

No-Action Alternative

Under the No-Action Alternative, types and amounts of hazardous materials utilized and hazardous wastes generated would be similar to those associated with current launch programs.

HEALTH AND SAFETY

Proposed Action

At both installations, procedures are in place for unplanned launch events, fire protection, alarm, fire suppression, flight termination, and explosive safety. Installation personnel and the general public are not predicted to be at risk during normal or aborted launches.

No-Action Alternative

Under the No-Action Alternative, both installations would continue to implement current health and safety procedures. Installation personnel and the general public are not predicted to be at risk during normal or aborted launches.

GEOLOGY AND SOILS

Proposed Action

Construction activities would uncover and disturb soils, increasing the potential for wind and water erosion; appropriate measures to control soil erosion would be implemented, and no adverse impacts are expected. At Vandenberg AFB, new facilities and facility modifications would incorporate earthquake-resistant design to meet requirements for Seismic Zone IV, and no adverse impacts are anticipated. In addition, under Concept B and Concept A/B, the South Vandenberg AFB boat dock area would be dredged. The dredging would be performed to its previous depth in a previously dredged area, thus eliminating impacts to undisturbed sediments.

No-Action Alternative

Under the No-Action Alternative, no changes to existing launch programs would take place. No ground disturbance would occur, and no impacts are expected.

WATER RESOURCES

Proposed Action

Under Concept A, peak-year deluge water requirements would represent a decrease from No-Action Alternative levels. Under Concepts B and A/B, peak-year deluge requirements would increase over No-Action Alternative levels (due to addition of commercial launches). EELV activities would not affect the quantity of water available to the installations or to the surrounding areas, or increase the amount of water withdrawn from groundwater resources. A Storm Water Pollution Prevention Plan would be required at both installations. Under both concepts, deluge water would be retained after launch and managed or treated in accordance with installation requirements.

Concept B and Concept A/B dredging activities at the South Vandenberg AFB Boat Dock would require a permit. Under Concepts B and A/B, deposition of hydrochloric acid (HCl) associated with the use of solid rocket motors for some launches (commercial missions only) may result in a brief

acidification of surface waters; however, no long-term impacts are expected. Adverse impacts to surface water and groundwater are not anticipated.

No-Action Alternative

Under the No-Action Alternative, deluge water requirements would not impact the quantity of water available to either installation. Existing launch vehicles use some solid rocket motors, so impacts would be similar to those described for solid rocket motors for Concept B. Adverse impacts to water resources are not anticipated.

AIR QUALITY (LOWER ATMOSPHERE)

Proposed Action

During construction activities, there would be an increase of local concentrations of criteria pollutants. However, these emissions would be temporary and short-term and would not jeopardize either region's attainment status for these pollutants. Application of water during ground-disturbing activities and efficient scheduling of equipment use would mitigate impacts during construction. Launch vehicle preparation and assembly activities would create short-term air emissions. EELV systems would have lower emissions than the current launch vehicle systems, on a per launch basis, and no adverse impacts are expected.

Because Vandenberg AFB is within an area designated by the U.S. Environmental Protection Agency (EPA) as in nonattainment for ozone, EELV program activities must comply with Clean Air Act requirements mandating that federal actions comply with the applicable State Implementation Plan to achieve attainment.

No-Action Alternative

Under the No-Action Alternative, nitrogen oxides (NO_x) emissions would be lower than those projected for the Proposed Action. This difference could be due, in part, to the smaller number of launches analyzed under the No-Action Alternative. No adverse impacts are expected.

AIR QUALITY (UPPER ATMOSPHERE)

Proposed Action

Under Concept A, launches would produce no estimated emissions to the stratosphere of any ODSs, and therefore would not contribute to any degradation of the stratospheric ozone layer. Under Concept B, launches that involve use of solid rocket motors (commercial missions only) would produce emissions of alumina particulates and chlorine compounds into the stratosphere; however, compared to baseline and No-Action Alternative emissions to the stratosphere, these amounts would be minimal, and adverse impacts are not anticipated.

No-Action Alternative

The emissions of alumina particulates and chlorine into the stratosphere would be greater under the No-Action Alternative than emissions resulting from the Proposed Action because of the larger number of launches utilizing solid rocket motors. However, these emissions are minimal compared to worldwide emissions of alumina particulates and chlorine compounds to the stratosphere, and no adverse impacts are anticipated.

NOISE

Proposed Action

Launch noise associated with EELV launches would be short-term and temporary. No human or structural impacts are anticipated. Sonic boom footprints for Cape Canaveral AS launches are far offshore over the Atlantic Ocean. At Vandenberg AFB, sonic booms could occur over the Channel Islands, and one proposed Concept A launch trajectory would result in a sonic boom over a portion of the California coastline. However, because of the small amplitude of the boom, no impacts are expected.

No-Action Alternative

Under the No-Action Alternative, noise and sonic boom exposure would be similar to current launch operation levels, which are comparable to those described under the Proposed Action. No impacts from noise and sonic boom are anticipated.

ORBITAL DEBRIS

Proposed Action

A small, incremental contribution to the existing orbital debris population could occur under all EELV concepts through fragmentation of upper stages. However, EELV program vehicles would be designed to minimize size and quantity of orbital debris.

No-Action Alternative

The No-Action Alternative launch vehicles would continue to contribute to the orbital debris population.

BIOLOGICAL RESOURCES

Proposed Action

At both installations, impacts to vegetation and wildlife would be minimal. Launch noise and sonic booms associated with EELV launches would be infrequent, short-term, and temporary. No noise impacts to wildlife are anticipated at Cape Canaveral AS. Temporary, minor impacts to sensitive species (startle effects) would occur from sonic booms at Vandenberg AFB; launches require a marine mammal take permit from the National Marine Fisheries Service. Permit requirements may include monitoring during launches.

At Cape Canaveral AS, any changes to artificial light sources would be designed to minimize impacts to sea turtles.

Under Concept A, the potential loss of jurisdictional wetlands at SLC-41 and at assembly facilities sites would be mitigated, as required, through appropriate permits. Mitigations could include replacement, protection, restoration, or avoidance. At Vandenberg AFB, proposed construction activities at SLC-3 have been designed to avoid the wetland present at the site.

Under Concept B, effects of HCl deposition from solid rocket motors at both installations would be minimal and temporary; pre- and post-launch monitoring would be conducted to assess long-term effects. At Cape Canaveral AS, vegetation impacts associated with clearing scrub jay habitat for construction of the Horizontal Integration Facility south of SLC-37 would be compensated under the Cape Canaveral AS Scrub Jay Habitat Compensation Plan. The potential loss of jurisdictional wetlands at SLC-37 would be mitigated, as required, through appropriate permits. Impacts to the southeastern beach mouse east of SLC-37 from fire and heat from the flame duct could be mitigated through a trapping and relocation effort and through habitat restoration. Prior to construction activities, a biological survey would be conducted to identify and relocate gopher tortoises at SLC-37.

Under Concept B at Vandenberg AFB, construction of the security fence at SLC-6 would disturb a 25-foot by 60-foot arroyo wetland and a Section 404 permit may be required. Dredging activities at the South Vandenberg AFB Boat Dock area would require a permit.

Implementation of Concept A/B is expected to result in a combination of the effects described previously for Concepts A and B.

No-Action Alternative

Under the No-Action Alternative, the continued use of some solid rocket motors would result in temporary deposition of HCl, but effects on biological resources from such deposition would be minimal. Other direct effects to vegetation and wildlife would be similar to those discussed for Concepts A and B.

CULTURAL RESOURCES

Proposed Action

Construction associated with the Proposed Action at Cape Canaveral AS would not affect any National Register of Historic Places (National Register)-listed or eligible prehistoric or historic archaeological sites, or archaeologically sensitive areas. Under Concept B, one facility that would require modification (Hangar C) may possess historical significance; a determination is pending. Mitigations, if required, would be developed in consultation with the Florida State Historic Preservation Officer (SHPO). No traditional resources have been identified in the Area of Potential Effect (APE).

Construction associated with Concept A at Vandenberg AFB would not affect any National Register-listed, eligible, or potentially eligible prehistoric or historic archaeological sites. Construction associated with Concept B at Vandenberg AFB would occur at SLC-6, which is an archaeologically sensitive area. Ground-disturbing activities would require archaeological and Native American monitoring. Under Concept A, Building 8510 has been determined to be eligible to the National Register of Historic Places under the Cold War historic context; however, no modifications are required at this facility and no adverse impacts are anticipated. No traditional resources have been identified in the APE.

No-Action Alternative

Under the No-Action Alternative, existing facilities would continue to support the current launch vehicle programs. However, no new construction or facility modifications have been proposed; therefore, no effects on historic properties are expected.

ENVIRONMENTAL JUSTICE

Activities associated with the Proposed Action would not cause disproportionately high and adverse impacts to low-income and minority populations.

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1.0 PURPOSE OF AND NEED FOR ACTION

This environmental impact statement (EIS) examines the potential for impacts to the environment as a result of the development, deployment, and operation of Evolved Expendable Launch Vehicle (EELV) systems. The proposed launch locations for the EELV program activities are Cape Canaveral Air Station (AS), Florida, and Vandenberg Air Force Base (AFB), California. For the purposes of this document, EELV systems consist of one or more families of vehicles that could replace Atlas IIA, Delta II, and Titan IVB launch vehicles. A glossary of terms, acronyms, and abbreviations used in this document is provided in Appendix A.

1.1 PURPOSE AND NEED

In 1994, representatives from the defense, intelligence, civil, and commercial space sectors developed a Space Launch Modernization Plan (SLMP) to evaluate national space launch systems and to improve the United States' launch capability. The SLMP contained four alternatives for the modernization of the United States' space launch capabilities:

- Sustain existing launch systems
- Evolve current expendable launch systems (EELV)
- Develop a new, expendable launch system
- Develop a new, reusable launch system.

On August 5, 1994, the President signed the National Space Transportation Policy, tasking the Secretary of Defense to provide an implementation plan for improvement and evolution of the current Expendable Launch Vehicle fleet. On October 25, 1994, the Deputy Secretary of Defense signed the National Space Implementation Plan for National Space Transportation Policy, which identified the EELV program as the Department of Defense's (DoD's) solution for reducing the cost of launches.

The primary governmental requirement of EELV systems is to provide the capability for lifting medium (2,500 to 17,000 pounds) and heavy (13,500 to 41,000 pounds) payloads to orbit according to the National Executable Mission Model (NMM) for government space launches at lower recurring costs than those of current expendable systems.

1.2 DECISION TO BE MADE

The Air Force will decide whether to participate in the development and operation of EELV systems. Participation may include funding development of EELV systems, purchase of launch vehicles or services, and/or Air Force authorization of the use of government property.

1.3 SCOPE

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA, Air Force Instruction (AFI) 32-7061, and DoD Regulation 5000.2R.

1.3.1 Public Participation Process

The public participation process provides an opportunity for public involvement in the development of an EIS. The Notice of Intent (NOI) (Appendix B) to prepare an EIS for the development and deployment of the EELV program was published in the Federal Register on February 19, 1997. Notification of public scoping was also made through the local media, as well as through letters to federal, state, and local agencies and officials, and interested groups and individuals.

The scoping period for the EELV program began on February 19, 1997. The Air Force held two public meetings during the scoping period to solicit comments and concerns from the general public: at Cape Canaveral, Florida, on March 11, 1997, and in Lompoc, California, on March 13, 1997. In addition to verbal comments accepted at these meetings, written comments were received during the scoping process. The Air Force used these comments, as well as NEPA requirements and information from previous Air Force programs, to determine the scope and direction of studies/analyses to accomplish this EIS.

This draft EIS (DEIS) was filed with the U.S. Environmental Protection Agency (EPA). The DEIS will be circulated for public review and comment for at least 45 days (Appendix C). All substantive written comments, as well as oral comments received at the public hearings, will be addressed in the final EIS (FEIS). The FEIS will be filed with the U.S. EPA; the Air Force may publish a Record of Decision (ROD) after a 30-day FEIS review period.

1.3.2 Scope of the EIS

This EIS is limited to the consideration of government and commercial activities directly associated with the EELV systems (e.g., construction, operation). The environmental effects of payloads that would utilize these systems to reach orbit shall be addressed, as required, under separate NEPA documentation that would be prepared for each of the satellite programs.

As a part of the scoping process, the Air Force made the decision to include analysis of the potential commercial launch operations of each of the two EELV contractors described in this EIS. It is likely that any contractor selected to conduct government EELV activities would also request use of the same facilities and EELV vehicle to launch commercial payloads. Therefore, to provide a complete analysis of potential environmental impacts of the implementation of the EELV program, Section 2.1 describes both the proposed government and commercial launch activities. It should be noted that although this analysis includes commercial launch operations, these operations may be increased, reduced, or modified depending on the actual commercial markets. Additional NEPA documentation may be required.

The Commercial Space Launch Act of 1984 (Public Law [P.L.] 98-575), as codified, 49 United States Code (U.S.C.) Subtitle IX, Ch. 701, Commercial Space Launch Activities (CSLA), declares that the development of commercial launch vehicles and associated services is in the national and economic interest of the United States. To ensure that launch services provided by

private enterprises are consistent with national security and foreign policy interests of the United States and do not jeopardize public safety and safety of property, the Department of Transportation (DOT) is authorized to regulate and license U.S. commercial launch activities. Within DOT, the Secretary's authority under CSLA has been delegated to the Federal Aviation Administration (FAA). Because licensing launch operations is considered to be a major federal action subject to the requirements of NEPA, the FAA Office of the Associate Administrator for Commercial Space Transportation must assess the potential environmental impacts of an applicant's proposed actions. Because of the addition of commercial activities, the FAA is serving as a cooperating agency in the preparation of this EIS. The FAA may use this EIS to document its NEPA requirement.

Other facilities would be utilized for manufacturing and/or operational and developmental testing and evaluation in support of the EELV systems. These facilities (including facilities belonging to contractors) and their operation are independent of this proposed government action. Operational test and evaluation activities would be limited to data gathering associated with operational launches; there would be no separate launches for testing purposes only.

1.4 RELEVANT FEDERAL PERMITS, LICENSES, AND ENTITLEMENTS

The representative federal permits, licenses, and entitlements that may be required of the EELV program are presented in Appendix D. More detailed discussions of environmental regulations are provided in the appropriate resource sections of Chapters 3.0 and 4.0.